CHECKLIST OF THE VASCULAR PLANTS OF WAITS WOODS, HANCOCK COUNTY, ILLINOIS

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ABSTRACT: A total of 213 species of vascular plants representing four divisions and 65 families has been collected at Waits Woods, Hancock County, Illinois. Two of these species, Phacelia purshii Buckley and Dodecatheon amethystinum Fassett are county records.

In December 1981, Dr. Myron Wait, a Hamilton, Illinois, dentist, and his wife, Mary, donated a 13-acre (5.26 ha) tract of land to Western Illinois University for preservation as well as for biological instruction and research purposes. The Waits for over 50 years have protected the area which they used for their own enjoyment of nature. The area is about eight miles (13 km) north of Hamilton, Hancock County, Illinois, near the Mississippi River. This paper presents a checklist of the vascular plants found in Waits Woods as a result of at least a monthly inventory from March through October 1982 and from which herbarium specimens are being prepared and will be deposited in the herbarium of the A. L. Kibbe Life Science Station (WARK) of Western Illinois University at Warsaw, Illinois. Nomenclature follows Mohlenbrock (1975).

The area is basically an oak-hickory-sugar maple woods on a moderately sloping mesic to dryish south to southwest-facing slope. This slope is on the north side of a small narrow valley formed by a stream cutting through the eastern Mississippi River bluff. The area has been disturbed primarily by logging (mostly oaks) in the past although some large trees remain. Some large electric power lines traverse the area in a north-south direction near the center of the woods and, as expected, the area below them has been cleared and the vegetation has been kept under control so as to not interfere with the lines.

The dominant trees are Acer saccharum Marsh., Carya cordiformis (Wang.) K. Koch, C. ovata (Mill.) K. Koch, C. tomentosa (Poir.) Nutt., Quercus alba L., Q. macrocarpa Michx., Q. rubra L., Q. velutina Lam. and, in certain places, Q. muhlenbergii Engelm. Tilia americana L. is also quite common. Major understory trees are Ostrya virginiana (Mill.) K. Koch and Prunus serotina Ehrh. The understory is rather open and, in general, has a characteristic typical herbaceous flora for this area of Illinois. There is somewhat of a contrast between the parts to the east and west of the power lines. The west side, due to being a little more mesic, has

perhaps a little better developed woody understory. At the southern edge of this woods were many Carpinus caroliniana Walt. and Monotropa uniflora L. plants as well being the only location we found Dodecatheon amethystinum Fassett, Corallorhiza odontorhiza (Willd.) Nutt. and Panax quinquefolius L. Commonly, and especially noticeable in spring and early summer, was the "carpeted" aspect of the ground due to a covering of Carex spp., Parthenocissus quinquefolia (L.) Planch. and Smilacina racemosa (L.) Desf. East of the power lines the ground often was likewise a cover of Carex spp., and Parthenocissus quinquefolia but also there was much shrubby Xanthoxylum americanum Mill.; near the north edge of this part were some Gymnocladus dioica (L.) K. Koch and at the southeastern tip on a small drier "tongue" some Danthonia spicata (L.) Beauv. Under the power lines there were herbaceous and especially woody forest remnants but this area was weedy with both herbaceous and woody (such as Ailanthus, Rhus, Rubus) species and it is here (as well as along the roadside) that about all of the alien species occurred. The upper end of a ravine traverses the power line area making for a small wet drainage in which some moist soil plants such as Mimulus ringens L., Leersia virginica Willd., Lobelia siphilitica L., Pilea pumila (P.) Gray and Scirpus georgianus Harper occur.

About 400 plant specimens were collected which represented four divisions, 65 families, 146 genera and 213 species. The Equisetophyta was represented by one family, one genus and one species. The Polypodiophyta was represented by two families, two genera and two species. Therefore, the pteridophytes consisted of three families, three genera and three species. The only gymnosperms, the Pinophyta, were represented by one family, one genus and one species. The Magnoliophyta (angiosperms) was represented by 61 families, 142 genera and 209 species; of which the Magnoliopsida (dicots) consisted of 52 families, 113 genera and 159 species while the Liliopsida (monocots) consisted of nine families, 29 genera and 50 species. Of the 213 species, 23 (10.8%) were aliens. The largest families are the Compositae and Poaceae with 31 and 22 species respectively.

Two county records, Phacelia purshii Buckley (per Mohlenbrock and Ladd, 1978) and Dodecatheon amethystinum (per Mohlenbrock, 1978) were found. This station along the western border of Illinois along with Vermilion County (Mohlenbrock and Ladd, 1978) on the eastern border of Illinois represent the present northern-most limit in the state for Phacelia purshii. A very small population of this species was growing well in a moist area at the power-line and woods boundary. This station for Dodecatheon amethystinum besides being another county in the expected range of this species (Ugent et al., 1982) is also another extant location (the seventh county per Bowles et al., 1981) for this Illinois endangered species. One plant, which was fruiting, of the Illinois threatened species Panax quinquefolius (Bowles et al., 1981) was found in the woods. A specimen of Tilia americana L. var. neglecta (Spach) Fosberg was collected which

according to Mohlenbrock (1982) is rare and is the fifth and southern-most county of its occurrence in Illinois. Two forms of Trillium recurvatum Beck occurred in the woods: forma luteum Clute which according to Mohlenbrock (1970) is found occasionally throughout the state and forma shayii Palmer & Steyerm. which Mohlenbrock (1970) states is known from about six counties in the central and southern parts of the state.

LIST OF SPECIES

The taxa are listed alphabetically within each division. An asterisk (*) indicates the species is an alien according to Myers (1972).

DIVISION EQUISETOPHYTA
Equisetaceae

Equisetum hymmale L. var. affine (Engelm.) A.A. Eaton

DIVISION POLYPODIOPHYTA
Ophioglossaceae

Botrychium virginianum (L.) Sw.

Polypodiaceae

Cystopteris fragilis (L.) Bernh. var. protrusa Weatherby

DIVISION PINOPHYTA
Cupressaceae

Juniperus virginiana L.

DIVISION MAGNOLIOPHYTA
CLASS LILIOPSIDA
Araceae

Arisaema dracontium (L.) Schott
Arisaema triphyllum (L.) Schott

Commelinaceae

Tradescantia ohiensis Raf.

Cyperaceae

Carex albursina Sheldon
Carex blanda Dewey
Carex cephalophora Muhl.
Carex grisea Wahlenb.
Carex hirtifolia Mack.
Carex jamesii Schwein.
Carex normalis Mack.
Carex oligocarpa Schk.
Carex pensylvanica Lam.
Carex rosea Schk.
Carex shortiana Dewey
Carex vulpinoidea Michx.
Cyperus strigosus L.
Scirpus georgianus Harper

Dioscoreaceae

Dioscorea villosa L.

Juncaceae

Juncus tenuis Willd.

Liliaceae

Allium canadense L.
*Asparagus officinalis L.
Polygonatum commutatum (Schult.) A. Dietr.
Smilacina racemosa (L.) Desf.
Trillium recurvatum Beck.
Trillium recurvatum Beck. f. luteum Clute
Trillium recurvatum Beck. f. shayii Palmer & Steyermark
Uvularia grandiflora Sm.

Orchidaceae

Corallorhiza odontorhiza (Willd.) Nutt.

Poaceae

*Bromus inermis Leyss.
Bromus pubescens Muhl.
*Dactylis glomerata L.
Danthonia spicata (L.) Beauv.
*Digitaria ischaemum (Schreb.) Muhl.
Echinochloa pungens (Poir.) Rydb.
Elymus hystrix L.
Elymus villosus Muhl.
Festuca obtusa Bieler
Leersia virginica Willd.
Muhlenbergia schreberi J. F. Gmel.
Muhlenbergia sobolifera (Muhl.) Trin.
Panicum capillare L.
Panicum dichotomiflorum Michx.
Panicum lanuginosum Ell.
Panicum latifolium L.
*Poa pratensis L.
*Setaria faberi Herrm.
*Setaria lutescens (Weigel) Hubb.
*Setaria viridis (L.) Beauv.
Sphenopholis obtusata (Michx.) Scribn. var. major (Torr.) Erdman
Tridens flavus (L.) Hitchcock

Smilacaceae

Smilax hispida Muhl.
Smilax lasioneuron Hook.

CLASS MAGNOLIOPSIDA

Aceraceae

Acer nigrum Michx. f.
Acer saccharum Marsh.

Anacardiaceae

Rhus aromatica Ait.
Rhus glabra L.
Toxicodendron radicans (L.) Kuntze.

Araliaceae

Aralia racemosa L.
Panax quinquefolius L.

Asclepiadaceae

Asclepias incarnata L.
Asclepias quadrifolia Jacq.
Asclepias syriaca L.
Asclepias verticillata L.
Cynanchum laeve (Michx.) Pers.

Berberidaceae

Podophyllum peltatum L.

Betulaceae

Carpinus caroliniana Walt.
Corylus americana Walt.
Ostrya virginiana (Mill.) K. Koch

Boraginaceae

Hackelia virginiana (L.) I. M. Johnston
Mertensia virginica (L.) Pers.

Campanulaceae

Campanula americana L.
Lobelia inflata L.
Lobelia siphilitica L.
Specularia perfoliata (L.) A. DC.

Caprifoliaceae

Lonicera prolifera (Kirchn.) Rehd.
Sambucus canadensis L.

Symphoricarpos orbiculatus Moench
Triosteum perfoliatum L.
Viburnum prunifolium L.

Compositae

Ambrosia artemisiifolia L.
Aster cordifolius L.
Aster lateriflorus (L.) Britt.
Aster ontarionis Wieg.
Aster pilosus Willd.
Aster sagittifolius Wedem. ex Willd.
Aster shortii Lindl.
Bidens frondosa L.
Cirsium discolor (Muhl.) Spreng.
*Cirsium vulgare (Savi) Tenore
Erigeron annuus (L.) Pers.
Erigeron canadensis L.
Erigeron philadelphicus L.
Eupatorium purpureum L.
Eupatorium rugosum Houtt.
Eupatorium serotinum Michx.
Gnaphalium obtusifolium L.
*Helianthus annuus L.
Helianthus hirsutus Raf.
Krigia biflora (Walt.) Blake
Lactuca canadensis L.
Lactuca floridana (L.) Gaertn.
*Lactuca serriola L.
Solidago canadensis L.
Solidago gigantea Ait.
Solidago ulmifolia Muhl.
*Taraxacum officinale Weber.
*Tragopogon dubius Scop.
Vernonia missurica Raf.

Cornaceae

Cornus drummondii C. A. Mey.

Cruciferae

Dentaria laciniata Muhl.

Ericaceae

Monotropa uniflora L.

Euphorbiaceae

Acalypha rhomboidea Raf.
Acalypha virginica L.
Chamaesyce maculata (L.) Small
Chamaesyce supina (Raf.) Moldenke
Poinsettia cyathophora (Murr.) Kl. & Garcke
Poinsettia dentata (Michx.) Kl. & Garcke

Fagaceae

Quercus alba L.
Quercus macrocarpa Michx.
Quercus muhlenbergii Engelm.
Quercus rubra L.
Quercus velutina Lam.

Geraniaceae

Geranium carolinianum L.

Hippocastanaceae

Aesculus glabra Willd.

Hydrophyllaceae

Ellisia nyctelea L.
Hydrophyllum virginianum L.
Phacelia purshii Buckley

Hypericaceae

*Hypericum perforatum L.
Hypericum punctatum Lam.

Juglandaceae

Carya cordiformis (Wang.) K. Koch
Carya ovata (Mill.) K. Koch
Carya tomentosa (Poir.) Nutt.
Juglans nigra L.

Labiatae

Blephilia ciliata (L.) Benth.
Monarda fistulosa L.
Pycnanthemum pilosum Nutt.
Scutellaria ovata Hill
Stachys tenuifolia Willd.
Teucrium canadense L. var. occidentale (Gray) McClintock & Epling

Leguminosae

Cercis canadensis L.
Desmodium dillenii Darl.
Desmodium glutinosum (Muhl.) Wood.
Desmodium nudiflorum (L.) DC.
Gleditsia triacanthos L.
Gymnocladus dioica (L.) K. Koch
*Lespedeza stipulacea Maxim.
*Medicago lupulina L.
*Melilotus alba Desr.
Robinia pseudoacacia L.
Strophostyles helvola (L.) Ell.
*Trifolium pratense L.

Menispermaceae

Menispermum canadense L.

Moraceae

*Maclura pomifera (Raf.) Schneider
*Morus alba L.
Morus rubra L.

Oleaceae

Fraxinus americana L.
Fraxinus quadrangulata Michx.

Onagraceae

Circaea quadrisulcata (Maxim.) Franch. & Sav. var. canadensis (L.) Hara
Oenothera biennis L.

Oxalidaceae

Oxalis dillenii Jacq.
Oxalis violacea L.

Papaveraceae

Dicentra cucullaria (L.) Bernh.
Sanguinaria canadensis L.

Phyrmaceae

Phryma leptostachya L.

Phytolaccaceae

Phytolacca americana L.

Plantaginaceae

Plantago rugelii Dcne.

Platanaceae

Platanus occidentalis L.

Polemoniaceae

Phlox divaricata L. ssp. laphamii (Wood) Wherry

Polygonaceae

Polygonum scandens L.
Polygonum virginianum L.
*Rumex crispus L.

Portulacaceae

Claytonia virginica L.

Primulaceae

Dodecatheon amethystinum Fassett

Ranunculaceae

Anemone virginiana L.
Ranunculus abortivus L.

Rosaceae

Agrimonia gryposepala Wallr.
Agrimonia pubescens Wallr.
Amelanchier arborea (Michx. f.) Fern.
Geum canadense Jacq.
Potentilla simplex Michx.
Prunus serotina Ehrh.
Prunus virginiana L.
Rubus allegheniensis Porter
Rubus flagellaris Willd.
Rubus occidentalis L.
Rubus pensylvanicus Poir.

Rubiaceae

Galium aparine L.
Galium circaezans Michx.
Galium concinnum Torr. & Gray

Rutaceae

Xanthoxylum americanum Mill.

Salicaceae

Populus deltoides Marsh.
Salix interior Rowlee

Saxifragaceae

Ribes missouriense Nutt.

Scrophulariaceae

Mimulus ringens L.
Scrophularia marilandica L.
*Verbascum thapsus L.

Simaroubaceae

*Ailanthus altissima (Mill.) Swingle

Solanaceae

Physalis heterophylla Nees
Solanum carolinense L.

Tiliaceae

Tilia americana L. var. neglecta (Spach) Fosberg

Ulmaceae

Celtis occidentalis L.
Ulmus rubra Muhl.

Umbelliferae

Osmorhiza claytonii (Michx.) Clarke
Sanicula gregaria Bickn.

Urticaceae

Pilea pumila (P.) Gray

Verbenaceae

Verbena stricta Vent.
Verbena urticifolia L.

Violaceae

Viola sororia Willd.

Vitaceae

Parthenocissus quinquefolia (L.) Planch.
Vitis riparia Michx.
Vitis vulpina L.

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